UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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December 17, 2007

Mr. Mark Prescott, Chief
Office of Operating and Environmental Standards,
Deepwater Ports Standards Division (CG-3PSO-5)
United States Coast Guard Headquarters
2100 Second Street, S.W.
Washington, D.C. 20593

Subject: Calypso LNG Deepwater Port Draft Environmental Impact Statement;
Docket Number: USCG-2006-26009; CEQ: 20070463; ERP: CGD-E03017-FL

Dear Mr. Prescott:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the U. S. Coast Guard's (USCG) Draft Environmental Impact Statement (draft EIS) for the proposed Calypso Liquefied Natural Gas Deepwater Port. Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment. In addition, EPA is a cooperating agency under NEPA for this project because Calypso has applied to EPA for National Pollutant Discharge Elimination System (NPDES) and Clean Air Act (CAA) permits for the operation of this facility. EPA's review of the draft EIS includes comments pursuant to both of EPA's regulatory roles.

The permit applicant, Calypso LNG LLC (Calypso), proposes to construct, own and operate a liquefied natural gas (LNG) receiving and regasification facility approximately 8-10 miles offshore of Fort Lauderdale, Florida, in the federal waters of the Atlantic Ocean, northeast of Port Everglades. The port would consist of two permanent anchoring systems and submersible anchor buoys and would be capable of mooring two types of LNG vessels simultaneously, a storage and regasification ship (SRS) and a transport and regasification vessel (TRV), by means of a submerged unloading buoy system. To move the gas to market, Calypso proposes to use flexible gas pipeline risers from each mooring that would connect the ships to ocean bottom couplings, and pipelines extending approximately 2.5 miles to a previously permitted, but not constructed, pipeline for the remaining distance to shore at Port Everglades. In addition to the TRV, various conventional LNG carriers capable only of transporting LNG will call at the port and unload LNG to the SRS.

The draft EIS evaluates the proposed construction and operation of the port and associated pipelines. The port would have an average delivery capacity (or output) of 1.1 billion standard cubic feet of natural gas per day (bscfpd) with a peak output capacity of 1.9 bscfpd. Calypso also proposes to employ closed-loop shell and tube vaporization

(STV) technology aboard both regasification vessels.

Regarding the alternatives analysis, in addition to the proposed STV technology, the draft EIS provides a detailed evaluation of several other LNG vaporization technologies, including open-loop technologies that would utilize seawater to heat the gas. One other technology, Ambient Air Vaporization (AAV), that entirely avoids seawater withdrawals and air emissions was discussed, but not carried forward for detailed evaluation. Based on the anticipated environmental and operational benefits, we recommend this alternative be retained in the FEIS, analyzed in detail, and considered as a viable available technology.

Based on the EPA review, the primary adverse impacts of the proposed facility operation would be on air quality and ocean bottom habitats. The Calypso Port's proposed closed-loop STV configuration, when compared to the open-loop STV configuration and other open-loop technologies, would avoid significant adverse operational impacts to icthyoplankton and other important planktonic marine life at both the seawater intake and discharge points. The proposed STV's withdrawals would be a small percentage of the withdrawals required for an open-loop configuration. Additionally, the STV process involves some air emissions from the gas-fired heating and associated shipboard processes. Calypso proposes to minimize the air quality impacts through use of engine heat, selective catalytic reduction, low NOx burner technology, ultra-low sulfur diesel and duel-fuel capabilities for SRS and TRV vaporizer boilers and engines.

EPA recognizes that the selected location of the two, 2.5 mile gas output service lines would avoid most hard bottom habitats. In its permitting action for the pipeline that would connect the service lines to the shore, FERC addressed impacts of the pipeline on hard bottom habitats. The draft EIS does not address the inter-connection and service line construction methods, including the possible ways to minimize impacts on hard bottom habitats. We recommend the final EIS include this information.

EPA also believes that it is important to view this project in a regional context. Calypso Port is the only regasification facility identified in the cumulative impacts section of the draft EIS as being located within U.S. waters of the southeast Atlantic Ocean. However, since additional offshore LNG ports may be proposed in this region, we believe that the first port permitted should be as environmentally sound as possible to protect the significant environmental resources of coastal Florida. To fully characterize overall impacts of LNG facilities on South Atlantic fishery resources, we recommend the establishment of an interagency workgroup to address data deficiencies and develop a study plan for assessing the impacts of the use of seawater at LNG facilities.

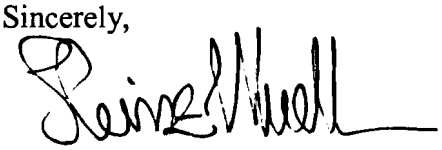
It should also be noted that EPA and the Corps of Engineers are currently discussing a proposed expansion of the Ocean Dredged Material Disposal Site located outside the entrance channel to Port Everglades. In addition, the Corps is also considering a Port Everglades harbor expansion project. Given the proximity of these

projects to the Calypso Port, EPA believes additional coordination between USCG and other agencies is appropriate, as these actions may affect decisions on the Calypso Port.

In summary, EPA has some environmental concerns regarding this project, as proposed, and rates this draft EIS as "EC-2" (*i.e.*, environmental concerns with additional information requested in the final EIS). Our primary concerns relate to air quality impacts from the facility operation and pipeline construction impacts. EPA supports the selection of the proposed STV port design which confines the operational components on board two ships. This closed-loop STV design would result in a substantial minimization of marine resource impacts, and thereby reduce the overall environmental impacts of the port. Please refer to the first enclosure for further discussion of EPA's comments, and to the second enclosure which defines EPA's rating system for EISs.

Thank you for the opportunity to review and comment on this draft EIS. We look forward to working with you, the USCG staff and Calypso to adequately address these remaining concerns. We encourage open communication between our technical staffs to achieve this goal. If you wish to discuss EPA's comments, please contact me at 404/562-9611 (mueller.heinz@epa.gov) or Ted Bisterfeld of my staff at 404/562-9621 (bisterfeld.ted@epa.gov)

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures: Detailed Comments on the draft EIS
EPA Rating System Description

cc: MARAD, Washington, DC
NMFS, St. Petersburg

ENCLOSURE - DETAILED EPA COMMENTS ON CALYPSO LNG PORT DEIS

PROJECT DESCRIPTION AND REGULATORY REQUIREMENTS

1. ES-6. The peak delivery capacity of Calypso Port is 1.9 bscfd, and the gas service lines from the port would be 30 inches in diameter. The size of FERC-permitted pipeline to shore also is indicated to be 30 inches in diameter. Because the pipelines would be the same size, it is unclear whether any other imports of natural gas are planned at this location as is suggested in the cumulative impacts section about potential Bahamian LNG projects. We suggest the final EIS include clarification regarding the gas carrying capabilities of the FERC-permitted pipeline, as compared to the projected volumes of natural gas product, as well as clarification about the ultimate plans for the FERC-permitted pipeline and project area.

2. ES-9. The assessment of impacts to icthyoplankton caused by seawater withdrawals discusses a term, "source waterbody." This term is defined as a 7.5-mile area and the text states that it was agreed to in consultation with federal and state resource agencies. No technical basis is indicated in the document for defining this area.

3. Section 2.1.5 Page 2-42. It is unclear whether pipeline construction and testing in Figure 2.1.5-1 "Construction Schedule" includes the FERC-permitted pipeline. This pipeline is an essential component of the Calypso Port, and is relevant to documenting cumulative environmental impacts. The status of the construction of the FERC-permitted pipeline could not be found in the document. The construction schedule concludes by July 2009, but construction of the SRS would not be completed until 2012. We recommend the final EIS clarify the timeframe for the proposed start of operations and indicate what activities would occur in the interim 3-year period.

4.. Section 2.1.3 Page 2-17. The description of the two regasification ships, including air control technologies, begins on this page. On October 9, 2007, EPA Region 4 received a revised best available control technology (BACT) analysis for the Calypso LNG Project. The revised BACT analysis proposes a selective catalytic reduction (SCR) system to control NOx emissions from the vaporizing boilers on the SRS. EPA has reviewed the revised BACT analysis and generally concurs with the conclusions presented. EPA recommends that references to the status of Calypso's BACT analysis and the proposed air emissions control technology in the final EIS be updated to reflect Calypso's updated proposal. For example, the description of the project on page 2-20 of the draft EIS should be revised to also include the use of SCR on the SRS vaporizer boilers.

5. Appendix J. "Air Quality Modeling" Page J-2 discusses National Emissions Standards for Hazardous Air Pollutants (NESHAP). That discussion identifies potentially applicable NESHAP requirements, which includes Standards for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63 subpart DDDD, ("the Boiler MACT"). On June 8, 2007, the U.S. Court of Appeals, D.C. Circuit, vacated the

provisions of the Boiler MACT, and it is, therefore, no longer applicable (NRDC v. EPA, 489 F.3d 1250 (D.C. Cir. 2007)). EPA has determined that §112(j) of the CAA, however, does apply to those sources that were subject to the Boiler MACT. EPA recommends that the applicable requirements section of the draft EIS reflect the recent change in the Boiler MACT applicability.

ALTERNATIVE TECHNOLOGIES

1. Section 2.1.4.3 Page 2-41. Calypso's proposed TRV and SRS benefit from being mobile in the event of major storms. However, there is no mention of where these vessels would go for refuge during storm events. Because there are few ports along the east coast of Florida capable of handling these vessels, we recommend that the final EIS provide additional information about storm refuge.

2. Section 2.1.2.2 Page 2-12. The proposed provision of anchor line buoyancy elements to suspend the anchor off the seafloor is a good mitigation measure for minimizing physical disturbance to benthic communities over the operational life of the port.

3. Table 2.2.1-2. Page 2-74. The use of the closed-loop vaporization configuration, as is proposed for Calypso Port, will minimize lethal and sub-lethal impacts to planktonic marine life, including impacts to juvenile and other life stages of fish larvae that are important to the marine fishery. The table shows that, if operated in the open-loop configuration, a maximum of 380 mgd of seawater per day could be withdrawn versus zero for closed-loop. The table does not show, however, that withdrawal at the port of up to 43 mgd of seawater is needed for vessel engine cooling and ballast water regardless of vaporization technology.

4. Section 2.2.1.4 Page 2-74. This section provides a brief overview of ambient air vaporization (AAV) technology but the technology was found to be infeasible for a vessel-based vaporization system. An AAV system is being considered for a TRV (*i.e.*, vessel-based) application in California and for a FERC-permitted addition to an inshore LNG facility in Lake Charles, Louisiana. While there are differences in the facility operating characteristics between the Calypso Port and these other two projects, EPA recommends that AAV technology be retained for detailed consideration.

The discussion about environmental and technical issues associated with the use of AAV does not differentiate between AAVs using direct heat exchange and AAVs using indirect heat exchange, such as the LNG Smart Vaporization technology mentioned on page 2-75. EPA disagrees that freshwater generated as a result of the process will need to be treated with sodium hypochlorite prior to discharge. Complications due to water freezing on the surface of the heat exchanger are also mentioned. These challenges are only associated with AAVs that use natural draft air and direct heat exchange. Such problems can be eliminated with the use of AAVs that use indirect heat exchange and forced air.

The document mentions that use of an AAV system would require the storage of additional chemicals, thus resulting in an "increase in safety risks and potential

environmental impacts." The STV technology proposed by Calypso would burn natural gas to vaporize the LNG and would use glycol in this process. Hence, the provision of a supplemental heat source (*i.e.,* natural gas) for AAV and facilities to store and handle glycol in this offshore location do not appear to warrant dismissing this technology without further explanation. Glycol is a commonly used intermediate heat-exchanger fluid in closed-loop vaporizers, including AAV and STV. In addition, the semi-tropical southern Florida location, has equivalent or warmer ambient temperatures than the California and Louisiana locations of similar facilities. Given the potential environmental and economic benefits that can be achieved from using an ambient air heat source, EPA recommends a more thorough consideration of this technology in the final EIS.

5. Table 2.2.1-2, Page 2-74. Neither the draft EIS nor Appendix J provide adequate information to evaluate the emission estimates for regasification technologies. The references provided for such information are also inadequate. For example, the citation given for most values in the table refers to the *USCG Draft Environmental Impact Statement for the Bienville Offshore Energy Terminal.* For these same values, the Bienville draft EIS, in turn, references emissions calculations prepared for the Compass Port EIS. The Compass Port final EIS does not appear to provide these calculations, and provides as citation for their derivation, personal communications to the applicant. EPA recommends that the appropriate calculations be provided in Appendix J, to allow EPA to assess the assumptions used to derive the emissions estimates. In addition, all citations in the final EIS should refer to the original sources of the data.

6. Table 2.2.1-2 Page 2-74. EPA is also concerned that the accuracy of the values in the table has not been disclosed. For example, the third column represents the STV technology proposed by the applicant. These estimates were prepared using engineering design values for this application and are considerably more reliable than those estimated for the other technologies. Many emission estimates for the alternate technologies are identical to those in the Bienville EIS. The Bienville project had significantly different design characteristics and was proposed to be located 63 miles offshore. It is unclear why the crew, supply, tug and service vessel emissions estimates would be the same for a project located 8 miles from shore. The values for the AAV technology appear to have been estimated from scale-ups of stationary projects that do not have the same space or design constraints. Hence, these emission estimates should not be presented with accuracy of 2 or 3 significant figures. Such data representations may be misinterpreted as more accurate than should be assumed, especially when compared with other tables in the document, where values are based on engineering calculations rather than rough estimates. EPA recommends that proper documentation, including estimates of uncertainty, be provided for the comparisons in this table.

7. Section 2.2.1.4 Page 2-82. The Marine Life Exclusion System Alternatives section discusses alternative intake configurations. EPA recommends the final EIS further explain why and how a lattice screen size of 4 inches by 2 inches was selected and why a smaller slot size cannot be used and still minimize biofouling and clogging.

ALTERNATIVE DEEPWATER PORT LOCATIONS

1. Figure 2.2.1-2 Page 2-62. In the section about regional alternative site screening, the FERC-permitted Calypso pipeline route to shore is shown touching the active Ocean Dredged Material Disposal Site. The Corps of Engineers has proposed an expansion northward of this site. Additionally, another Federally-sponsored proposed expansion of Port Everglades harbor is being considered by the Corps. EPA believes additional coordination between USCG and other agencies is appropriate, as these actions may affect decisions on the Calypso Port.

2. Section 2.2.1.3 Page 2-61 and Sec. 5.5.3.1 Page 5-18. EPA agrees that avoidance of heavy shipping traffic areas is certainly important for location of an LNG port. This concern is addressed in the alternatives and in the Chapter 5 safety analyses. However, avoidance of "Navigation Fairways" is not mentioned as a Calypso Port site selection criterion, even though the USCG has defined such Fairways in coastal areas including approaches to coastal ports. EPA recommends that designated Navigation Fairways be shown on a map relative to the port location alternatives.

AFFECTED ENVIRONMENT

Section 3.9.3 Page 3-88 Climatology. Regional background information on tropical storms and hurricanes is not discussed in Section 3.9. Given the planned location of the LNG port, tropical storms and hurricanes are important features of the local climatology, which affect the design and operation of the proposed port and the consideration of alternatives. This information, for example, would likely be factored into the choice of a moveable, vessel-based design, versus a gravity-based structure. EPA recommends that the historical information on these storms be included in Section 3.9.

IMPACTS FROM PORT CONSTRUCTION

Marine Habitat

1. Section 6.2.1.5. Although the FERC-permitted Calypso Pipeline is identified in this cumulative impacts section, this project is an essential component of the proposed port. Truncating that pipeline to end at Calypso Port is indicated in FERC's Environmental Assessment as a possibility. It is unclear whether the impacts to the seafloor in Table 6.3.1-1 are for the portion that extends just to the Calypso Port, or further to the EEZ boundary (i.e., further offshore). We recommend that the quantifiable impacts of the portion of that project be expanded to include additional information, including the numbers of acres of impacted hardbottom marine habitat, pipeline length, and planned (or agreed to) mitigation.

2. Section 4.2.1.1 Page 4-5. Sediments within the port area generally consist of fine-grained silty sands. Construction of anchor footings and the pipeline would result in elevated turbidity within the water column. The analysis of these impacts is based on work assessing turbidity at the Port Everglades Ocean Dredged Spoil Disposal Site by the

Corps. The dredged material disposal values used by the Corps were taken from modeled values based on a dredged material dump using an estimated starting concentration as a model input value. Absent quantitative sediment particle size data for the dredged material and for the port site, a comparison of the sediments is not technically sound. Therefore, using the Corps sediment value in the estimate of turbidity resulting from bottom sediment disturbance is not relevant. We recommend that a more reasonable estimate of turbidity needs to be made and used in the appropriate transport and dispersion model. These recommendations for estimating concentrations and modeling also should be done for all construction, operations (*e.g.,* anchor chain sweep) and decommissioning to determine whether suspended sediments will be transported in potentially high concentrations to sensitive bottom communities.

Air Quality

1. Table 4.9.1-2.Page 4-94. "Construction Impacts" The FAAQS for $PM_{2.5}$ 24-hour average should be listed as 35 ug/m^3, the same as the NAAQS (see Table 3.9.2-1).

2. Table 4.9.1 Page 4-94. Under EPA modeling guidelines, the background ambient concentration used in the NAAQS and FAAQS assessment is not selected to represent the years of meteorological data used in the modeling. The selected representative background value is used independent of the meteorological data period associated with the controlling modeled concentration. Therefore, because $PM_{2.5}$ emissions are either assumed equal to or a subset of the PM_{10} emissions, the maximum modeled PM_{10} concentrations should always be larger than the maximum modeled $PM_{2.5}$ concentrations. EPA recommends that footnote "b" of this table be further explained.

3. Table 4.9.1 Page 4-94. The ambient background concentration for $PM_{2.5}$ 24-hour period should agree with that provided in Table 3.9.2-2; a value of 22 or 23 ug/m^3.

IMPACTS FROM PORT OPERATIONS

Seawater Intakes and Discharges Impacting Plankton and Fishery Resources

1. Section 4.3.1.5 Page 4-54. The discussion of the impacts from the seawater intakes and discharge (beginning on page 4-53) are expressed as results from the Empirical Transport Model (ETM). The ETM, as used here, was developed by NOAA and USCG and is simply an estimate of the fraction of plankton entrained from a source water body that has not been technically established. Also, the draft EIS acknowledges the absence of life history data for important ichthyoplankton species to conduct an age-1 and equivalent yield analysis.

Table 4.3.1-7 Page 4-55. This table presents the USCG's estimated fractional loss as a "percent population loss." This entry would be more accurately termed "percent ichthyoplankton loss." The effect of the ichthyoplankton loss on adult breeding populations can be estimated only if you have the missing life history data for the fish species affected and data for the target fishery. Because impacts to any fishery are much

more complex than a simple estimate of ichthyoplankton loss, those impacts cannot be estimated.

Section 4.3.1.5 Page 4-55. The draft EIS indicates here that Calypso agrees to continue with the site specific ichthyoplankton survey. However, without some valid species life history data and without information regarding the fish populations, into which the lost eggs/larvae would have been added ,a quantitative estimation of fishery loss will not be possible. Using the proposed Calypso site data survey, EPA recommends that the USCG, National Marine Fisheries Service, Florida Fish and Wildlife Conservation Commission devise a plan to begin development of the needed information required to estimate long-term fishery impacts, including appropriate region of impact and impact models.

As stated above and in summary, fishery data and information are not currently available but are needed now to assess the actual impacts due to ichthyoplankton loss. In addition to the on-going site specific ichthyoplankton assessment, EPA suggests that the appropriate federal and state agencies work to develop a plan to provide the necessary data for future fishery assessments.

2. Section 4.3.1.5 Page 4-58. The brief impact discussion of engine-cooling discharges, as well as the discussion of the impacts of warming water discharge on Page 4-66, are based on the assumption that the principal risk to ichthyoplankton is due to a generalized change of temperature (in the case of a thermal plume) or degradation of water quality in the receiving water, and that rapid dilution to near ambient conditions eliminates the risk. EPA, however, understands that the primary threat is from the rapid exposure of plankton to physical and chemical constituents of the discharge plumes as a result of the entrainment of ambient seawater during the mixing process. The potential for bodily injury to organisms resulting from high velocity discharge jetting also exists. It is well established scientifically, however not widely recognized, that discharge plumes mix with ambient water through the physical process of entrainment of ambient water into the plume on the order of 10-12 times the discharged volume to achieve near ambient conditions. Because the discharge plumes are jetted in order to achieve rapid mixing (to meet criteria within designated mixing zones), entrainment of sea water and suspended particles is rapid, thus exposure to portions of the plume containing extreme values for temperature and contaminants is also rapid. Rapid exposure to extreme environmental conditions may potentially result in far more significant ichthyoplankton mortality than that caused by seawater intake entrainment. EPA recommends the inclusion of a discussion in the final EIS of these processes and the potential impacts to ichthyoplankton.

To EPA's knowledge the problem of plankton mortality, as a result of exposure through discharge plume entrainment, has not been worked out; therefore, there is currently no way to make reasonable estimates of potential impacts. We recognize that proposed Calypso discharge volumes are relatively small compared with those from open loop gas vaporization projects. Though there is less concern regarding Calypso specifically, because the risks associated with discharge entrainment do have the potential to be far greater than those for intake entrainment, EPA recommends that the final EIS make clear

what information is missing and that appropriate steps be taken to provide a solution to analyzing this impact accurately.

Air Quality

1. Table 4.9.1-5 Page 4-97, J-7 and J-10. The emissions and impact modeling assume bunker fuel oil with 1.5% sulfur content. EPA is concerned that this value is not representative of the sulfur content in the fuels used in the international LNG carrier fleet. In other EIS documents, the USCG has reported average sulfur content of such fuels as 2.7% with an upper limit of 5.0%. EPA recommends that the modeling reflect a representative value for the sulfur content used by the fleet, or in the alternative, that the license be conditioned upon the use of 1.5% sulfur fuel by the LNG carriers.

2. Section 4.9.1 Page 4-101, 4-103, and J-13. Cumulative Impacts Modeling. The need to perform cumulative SO_2 impact modeling is indicated in the last paragraph on page 4-101. It appears that the cumulative analysis consisted of adding the maximum modeled impact associated with all project emissions (i.e., emissions provided in Tables 4.9.1-3 through 4.9.1-5) to the selected background monitored concentrations. Under EPA modeling guidelines, the modeling assessment in a cumulative analysis includes nearby emission sources as well as project emissions. EPA recommends that the cumulative assessment also include emissions from other nearby (i.e., within the Source Impact Area plus 50 km) emission sources in the impact modeling assessment.

Because this facility is subject to permitting under the Prevention of Significant Deterioration (PSD) program, it is appropriate for the EIS to include an assessment of compliance with the PSD Class II increments in the cumulative analysis for SO_2. Appendix J of the draft EIS indicates that this assessment was performed and that the results appear in section 4.9. However, this information does not appear in the draft EIS. EPA recommends that the cumulative assessment for SO_2 include consideration of the PSD Class II increments, and that this information be reported in the final EIS.

The description of the procedures used to perform cumulative modeling in Appendix J (see page J-13) has the same deficiencies as noted above. In addition, the DEIS appears to use the results of the NAAQS and FAAQS cumulative compliance assessment to address PSD Class II increment compliance. Under EPA guidance, the PSD increment assessment should only include nearby PSD increment affecting emission sources with the project's emissions and not background monitored concentrations. Thus, EPA recommends that the PSD increment compliance modeling assessments only include total project emissions and emissions from other nearby PSD sources or emissions units.

Finally, the DEIS and Appendix J do not provide detailed information needed to fully evaluate the modeling (*e.g.,* table of modeled emission units and input rates, listing of other nearby sources considered and included in the modeling, location and resolution of receptors, input and output modeling files, etc.). EPA recommends that detailed air quality modeling information be provided in an appendix.

3. Table 4.9.1-10 Page 4-103. As indicated above, under EPA's modeling guidelines, NAAQS and FAAQS assessment typically includes the inclusion of nearby sources' emissions in the impact modeling. Without considering these sources, comparison with the NAAQS and FAAQS, as provided in Table 4.9.1-10, is not meaningful or appropriate. EPA recommends that these assessments include nearby source emissions. In addition, the reported maximum $PM_{2.5}$ modeled concentrations in this table are larger than the PM_{10} values. Because PM2.5 is a subset of the PM10 emissions, this result appears to be an error. EPA recommends that this assessment result be reviewed or further explained.

4. Appendix J. "Air Quality Modeling Parameters during Operations" Pages J-13 and 14. The last sentence of this paragraph indicates that Section 4.9 includes assessment of PSD Class II increments. That section, however, does not include the assessment of PSD increment compliance. In addition, the statement that all sensitive Class II impacts were less than 5 percent of the Class II SILS is not accurate. Table 4.9.1-9 shows concentrations for all pollutants greater than 5 percent of the SILS. SO_2 3-hour and 24-hour concentrations are also greater than the applicable SIL.

In addition, the second and third sentence in this paragraph indicate combining project impacts with background monitored concentrations provides appropriate values to compare to the NAAQS and FAAQS. As indicated above, under EPA's modeling guidelines, to obtain appropriate concentrations to compare to these standards, the modeling should include other nearby emission sources and total project emissions. EPA recommends that these analyses be reviewed and revised, as necessary.

5. Section 4.9.3 Page 4-106. Mitigation Measures. The applicant has indicated that 9 TRVs will service the proposed port. A few of these vessels may be equipped with SCR on their marine boilers (*i.e.,* those also servicing Neptune LNG) or may have ambient air vaporization systems. EPA recommends that MARAD include in the mitigation and monitoring plan the requirement that TRVs equipped with SCR or AAV use such systems while operating at Calypso Port.

Noise

Section 4.10.1.2 Page 4-110. Port operations would include use of helicopters to transport personnel and equipment, and the SRS design includes a helipad. Table 4.10.1-5 presents several noise levels in excess of 90 decibels. It is unclear whether these values are maximum sound levels and at what distance they would occur. EPA recommends that the final EIS provide the distances from the helicopter source of the noise levels, and the location of the helicopter terminal.

U.S. ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL IMPACT STATEMENT (EIS) RATING SYSTEM CRITERIA

EPA has developed a set of criteria for rating Draft EISs. The rating system provides a basis upon which EPA makes recommendations to the lead agency for improving the draft.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- LO (Lack of Objections): The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.

- EC (Environmental Concerns): The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.

- EO (Environmental Objections): The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental objections can include situations:

    1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;
    2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;
    3. Where there is a violation of an EPA policy declaration;
    4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or
    5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.

- EU (Environmentally Unsatisfactory): The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:

    1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;
    2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or
    3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

- 1 (Adequate): The Draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

- 2 (Insufficient Information): The Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the Final EIS.

- 3 (Inadequate): The Draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the Draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the Draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised Draft EIS.